

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 1, 2019 / 2020

**PPE0044 – BASIC MICROECONOMICS**  
(Foundation in Business)

15 OCTOBER 2019  
2.30p.m – 4.30p.m  
(2 Hours)

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### INSTRUCTIONS TO STUDENT

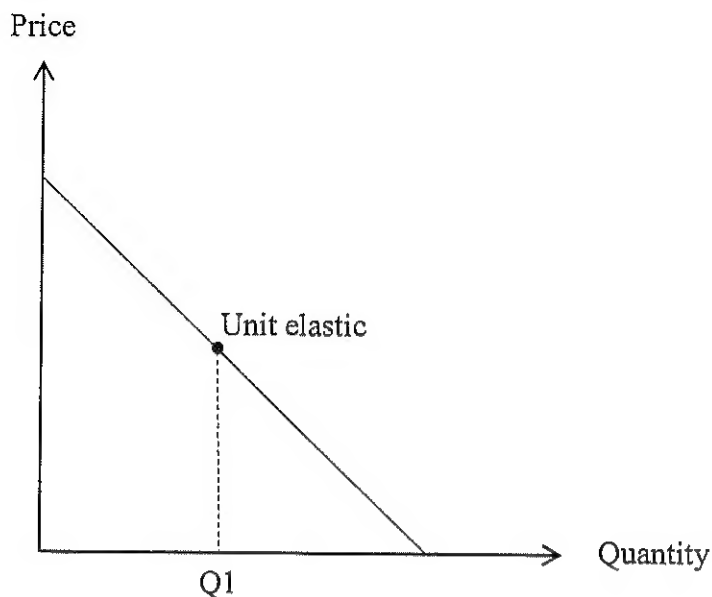
1. This question paper consists of **ELEVEN (11)** pages with 2 sections.
2. Attempt **ALL** the questions in **Sections A and B**. The distribution of the marks for each question is given.
3. Shade your answers for **Section A** on the OMR sheet provided. Write your answers for **Section B** in the Answer Booklet provided.

**SECTION A: MULTIPLE CHOICE QUESTIONS [30 MARKS]**

1. If the price elasticity of demand is 0.5, this means that a \_\_\_\_\_ increase in price causes a \_\_\_\_\_ decrease in quantity demanded.
  - A. 5%; 1%
  - B. 20%; 1%
  - C. 30%; 15%
  - D. 20%; 100%
2. Which of the following products has the least elastic demand?
  - A. All beverages
  - B. All cola drinks
  - C. Coca Cola in 12 oz. cans
  - D. All carbonated beverages
3. Suppose a decrease in the supply of wheat results in an increase in revenue. This indicates that \_\_\_\_\_.
  - A. the supply curve for wheat must be vertical
  - B. the demand curve for wheat must be vertical
  - C. the resulting increase in price is proportionately greater than decrease in quantity sold
  - D. the decrease in quantity sold is proportionately larger than the resulting change in price
4. If the price elasticity of demand for cigarettes by teenagers is 1.5, then to reduce teen smoking by 60 percent, tobacco companies would need to raise their prices by \_\_\_\_\_.
  - A. 15%
  - B. 40%
  - C. 60%
  - D. 90%

**Continued...**

Refer to *Exhibit 1* for question no.5.

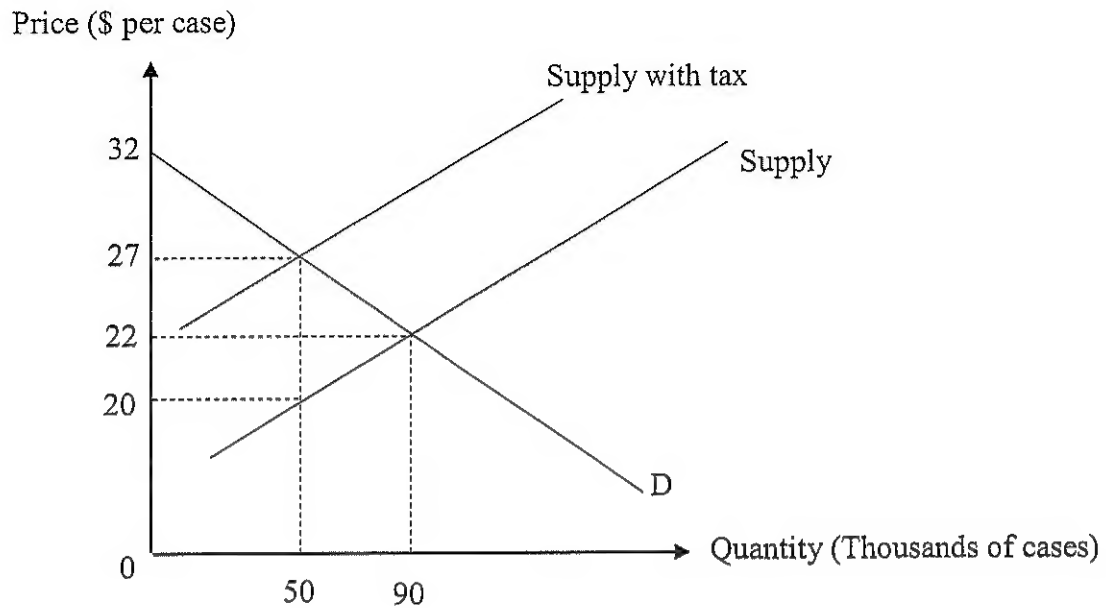


*Exhibit 1*

5. Refer to *Exhibit 1*. At quantities larger than  $Q_1$ , \_\_\_\_\_.
  - A. total revenue is rising
  - B. price elasticity is greater than 1
  - C. price and total revenue are directly related
  - D. all of the above
6. Suppose that an Italian ice cream firm is facing a linear demand curve and that the current price for the Italian ice cream is set at a point where the price elasticity is 0.7. If the firm decreases the product price, \_\_\_\_\_.
  - A. the demand becomes less inelastic and total revenue increases
  - B. the demand becomes less inelastic and total revenue decreases
  - C. the demand becomes more inelastic and total revenue increases
  - D. the demand becomes more inelastic and total revenue decreases
7. If the quantity demanded for peanut butter falls by 12% when income rises by 10%, then peanut butter is \_\_\_\_\_.
  - A. a normal good
  - B. an inferior good
  - C. income-elastic demand
  - D. both B and C
8. If an increase in the price of good X results in a decrease in the quantity of Y demanded, \_\_\_\_\_.
  - A. good X and good Y are substitutes
  - B. good X and good Y are complements
  - C. the cross elasticity of demand for good Y is positive
  - D. There is not sufficient information to determine the relationship between good X and good Y

Continued...

Refer to *Exhibit 2* for question no.9.



*Exhibit 2*

9. Refer to *Exhibit 2*. For each unit sold, the price that sellers receive after the tax is \_\_\_\_\_.

- A. \$20
- B. \$22
- C. \$27
- D. \$32

10. Suppose that the price elasticity of supply is 1.25 and the quantity supplied increases by 10%. Other things being equal, the percentage change in the price should be \_\_\_\_\_.

- A. a 0.8% increase in the price
- B. an 8% increase in the price
- C. a 1.25% increase in the price
- D. a 12.5% increase in the price

11. Lauren runs a chili restaurant in San Francisco. Her total revenue last year was \$110,000. The rent on her restaurant was \$48,000, her labour costs were \$42,000, and her materials, food and other variable costs were \$20,000. Lauren could have worked as a chemist and earned \$50,000 per year. An economist calculates her implicit costs as \_\_\_\_\_.

- A. \$63,000
- B. \$50,000
- C. \$150,000
- D. \$110,000

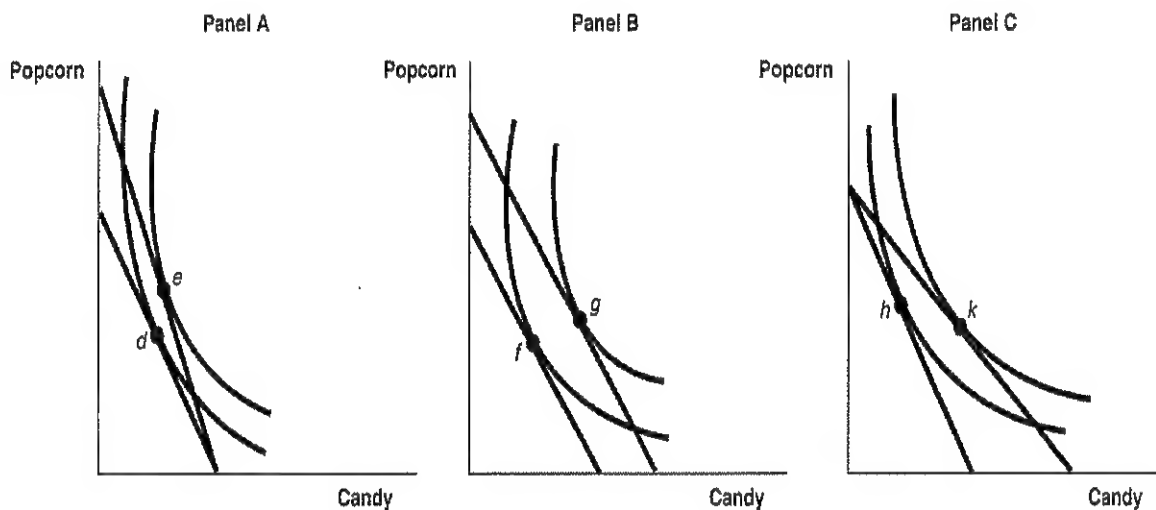
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12. Which of the following statements is **CORRECT**?
- A. The marginal product equals the average product when the marginal product is at its maximum.
  - B. When the marginal product exceeds the average product, the slope of the average product curve must be negative.
  - C. When the marginal product of an additional worker is less than that of the previous worker, the firm has increasing returns.
  - D. When the marginal product of an additional worker is less than that of the previous worker, the firm has decreasing returns to labour.
13. An insurance agent rents a building and has a three-year lease. An increase in the rent for the building increases the agent's \_\_\_\_\_.
- A. total variable cost and total cost
  - B. total cost and average variable cost
  - C. total fixed cost and total variable cost
  - D. total fixed cost and average fixed cost
14. When a firm's long-run average cost curve is horizontal for a range of output, then that range of production displays \_\_\_\_\_.
- A. constant returns to scale
  - B. increasing returns to scale
  - C. decreasing returns to scale
  - D. constant average fixed costs
15. Agner is maximising his total utility by buying sports magazines and protein supplements. For him to buy more sports magazines, \_\_\_\_\_.
- A. the price of sports magazines has to fall
  - B. the price of sports magazines has to rise
  - C. the price of protein supplements has to fall
  - D. since Agner is maximising his utility, nothing can change the consumption of sports magazines
16. Implicit in the solution to the water diamond paradox is the idea that prices reflect \_\_\_\_\_ utility instead of \_\_\_\_\_ utility.
- A. marginal; total
  - B. total; marginal
  - C. marginal; average
  - D. total; average

Continued...

17. The demand curve for corn is downward sloping. If the price of corn, an inferior good, falls, \_\_\_\_\_.
- both the income and substitution effects reinforce each other to increase the quantity demanded
  - the income and substitution effects offset each other but the price effect of an inferior good leads you to buy less corn
  - the income effect which causes you to reduce your corn purchases is smaller than the substitution effect which causes you to increase your corn purchases, resulting in a net increase in quantity demanded
  - the income effect which causes you to increase your corn purchases is larger than the substitution effect which causes you to reduce your corn purchases, resulting in a net increase in quantity demanded

Refer to *Exhibit 3* for question no.18.



*Exhibit 3*

18. Refer to *Exhibit 3*. Which diagram demonstrates a decrease in total utility following an increase in the price of candy?
- The movement from *e* to *d* in Panel A
  - The movement from *g* to *f* in Panel B
  - The movement from *k* to *h* in Panel C
  - None of the above
19. Under perfect competition, one farmer's rice is \_\_\_\_\_.
- slightly different from another farmer's rice
  - a perfect substitute for another farmer's rice
  - completely different from another farmer's rice
  - a monopolised product in that farmer's local market

Continued...

20. Suppose Kea Strawberry farm is a perfectly competitive firm. If Kea farm's marginal revenue equals RM25 per kg, and Kea decides to sell 100 kg of strawberries, Kea farm's total revenue equals \_\_\_\_\_.  
A. RM25  
B. RM250  
C. RM400  
D. RM2500
21. If the strawberries industry is perfectly competitive with a market price of RM25 per kg and Kea Strawberry farm charged RM27 per kg, how many kilos of strawberries would Kea farm sell?  
A. None  
B. More than he would at the price of RM25  
C. Fewer than he would at the price of RM25  
D. Just as many as he would at the price of RM25
22. Jason, a perfectly competitive tulip grower in Malaysia, sells his tulips at a price greater than his average total cost. Jason will \_\_\_\_\_.  
A. incur an economic loss  
B. make an economic profit  
C. make zero economic profit  
D. lower its price to increase its economic profit
23. A monopolist faces a demand curve which is \_\_\_\_\_.  
A. the market demand curve  
B. not affected by the changes in price  
C. flatter than the demand curve that faces a perfectly competitive firm  
D. the same as the demand curve that faces a perfectly competitive firm
24. When a monopolist sells two units of output and its total revenues are RM100. When the monopolist sells three units of output, its price per unit is RM34. The monopolist's marginal revenue from selling the third unit of output is \_\_\_\_\_.  
A. RM2  
B. RM3.40  
C. RM102  
D. RM134
25. A monopolist's marginal revenue is RM12 at a price of RM15. If the marginal cost of production is RM13, what should the monopolist do in order to maximise its profits?  
A. Increase its price  
B. Decrease its price  
C. Increase its output level  
D. Keep its price at the same level

Continued...

26. Compare to a perfect competitive market equilibrium, when a monopolist chooses to produce at the profit maximising level of output, it will result in a deadweight loss because \_\_\_\_\_.
- A. the monopolist will charge a price lower than the competitive equilibrium
  - B. the monopolist will keep producing at a quantity even though the  $MR < MC$
  - C. the monopolist will produce at a quantity lower than the competitive equilibrium
  - D. the monopolist will produce at a quantity higher than the competitive equilibrium
27. Produce a differentiated product in monopolistic competition market means that \_\_\_\_\_.
- A. each firm must charge the same price
  - B. each firm must produce the same quantity
  - C. each firm can set the price of its particular product
  - D. firms cannot enter the market to compete for economic profits
28. If the marginal cost of a monopolistically competitive firm is RM4.28, the firm will decrease its output if \_\_\_\_\_ to obtain profit maximising level.
- A. its marginal revenue is equal to RM4.28
  - B. its marginal revenue is less than RM4.28
  - C. its marginal revenue is more than RM4.28
  - D. its average variable cost is more than RM4.28
29. In oligopoly, firms \_\_\_\_\_.
- A. are able to influence price only if the products produced are identical
  - B. are able to influence price only if the products produced are differentiated
  - C. are able to influence price regardless of whether or not the products produced are differentiated or identical
  - D. have no influence over price regardless of whether or not the product produced are differentiated or identical
30. Oligopoly differs from monopolistic competition in that an oligopoly \_\_\_\_\_.
- A. has few firms
  - B. has barriers to entry
  - C. is interdependence among firms
  - D. all of the above

(Total: 30 marks)

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**SECTION B: STRUCTURED QUESTIONS [70 MARKS]****Question 1****Part A**

**Exhibit 4** shows Lily's total utility and marginal utility from consuming waffles and sandwiches as she eats more and more of both goods each day. Suppose the price of a waffle is RM2 and the price of a packet of sandwich is RM1.

Packet of sandwiches	Total utility of sandwiches	Marginal utility of sandwiches	Number of waffles	Total utility of waffles	Marginal utility of waffles
1	8	—	1	—	20
2	14	—	2	—	16
3	—	4	3	48	—
4	—	2	4	54	—
5	—	0	5	52	—

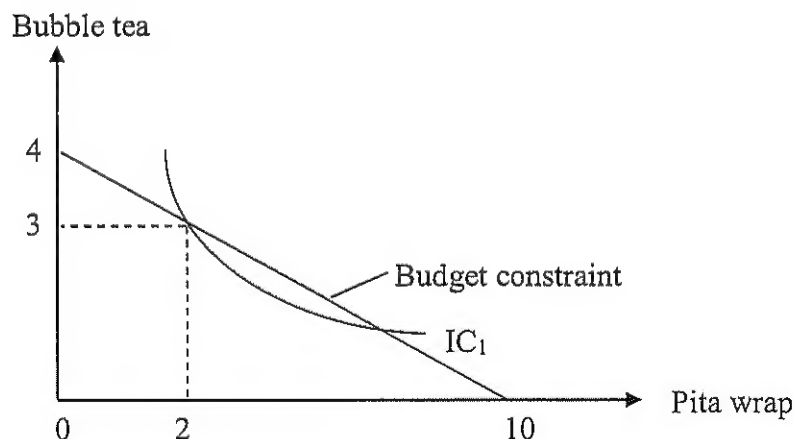
**Exhibit 4**

Based on **Exhibit 4**,

- reproduce **Exhibit 4** into your answer booklet and complete the missing cells. (5 marks)
- calculate the marginal utility per price ratio for waffles and sandwiches. (5 marks)
- if Lily has RM5 to spend on both goods, how should Lily allocate her RM5 between waffles and sandwiches so as she can achieve maximum utility? Explain. (2 marks)
- suppose there is a decrease in the price of waffles. How should Lily modify her consumption bundle to achieve maximum utility? (2 marks)

**Part B**

Suppose that Jane has RM20 to spend on bubble tea and pita wrap. **Exhibit 5** shows Jane's budget constraint and her indifference curve.

**Exhibit 5****Continued...**

Based on *Exhibit 5*,

- what is the price of a cup of bubble tea? What is the price of pita wrap?  
(2 marks)
- derive Jane's budget equation.  
(2 marks)
- does Jane make the optimum choice if she buys 3 cups of bubble tea and 2 pita wraps? Briefly explain.  
(2 marks)

[TOTAL 20 MARKS]

### Question 2

Billy operates his business in the centre of a city. *Exhibit 6* shows the relationship between the level of production and costs in the short run for his business.

No. of workers	Total output	Total cost (RM)
0	0	300
1	625	800
2	1,325	1,300
3	2,200	1,800
4	2,600	2,300
5	2,900	2,800

*Exhibit 6*

Based on *Exhibit 6*, answer the following questions.

- Calculate Billy's marginal product (MP) and average product (AP) for each worker employed.  
(5 marks)
- Based on (a), over what range of workers employed, the marginal product is greater than the average product. Over that range, how does the average product change as the number of workers increases?  
(1 mark)
- Based on (a), over what range of workers employed, the marginal product is less than the average product. Over that range, how does the average product change as the number of workers increases?  
(1 mark)
- Construct Billy's total variable cost, marginal cost, average total cost, and average variable cost schedules.  
(10.5 marks)
- What is the relationship between the firm's marginal product and marginal cost?  
(2.5 marks)

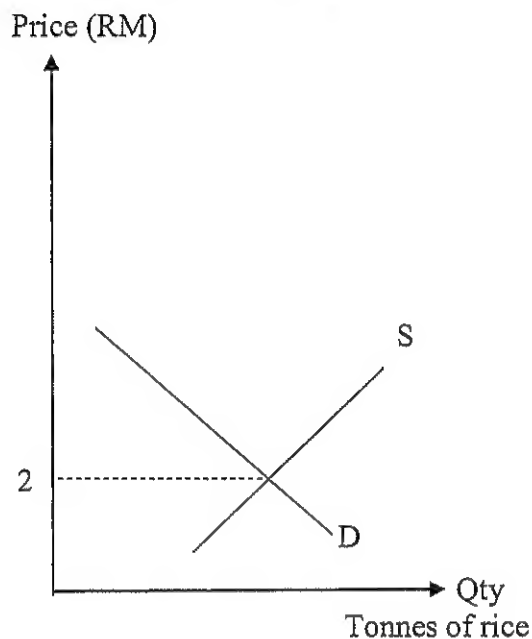
[TOTAL 20 MARKS]

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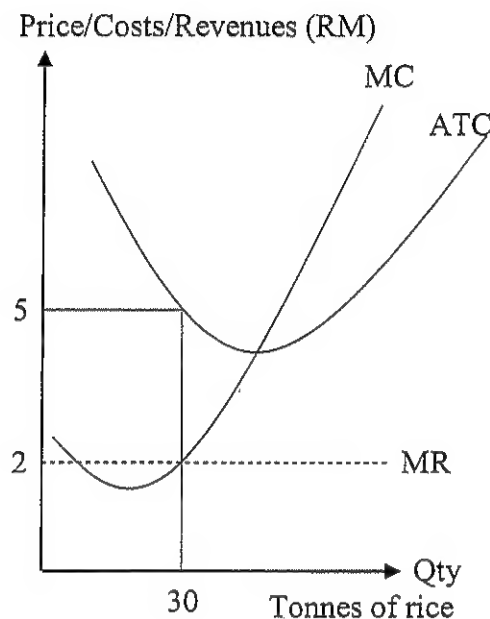
### Question 3

#### Part A

A local restaurant in Malaysia gets the supply of rice from local farms and from farms in Thailand. *Exhibit 7* shows the perfectly competitive market for rice in Malaysia. *Exhibit 8* shows the situation of Jasmine farm, one of the Malaysia farms supplying rice to the local restaurant.



*Exhibit 7*



*Exhibit 8*

- a) Based on *Exhibit 8*,
  - i) if Jasmine farm is producing at the profit maximising level of output, what is the marginal cost (MC) of the farm at this level? Why? (2 marks)
  - ii) calculate the total revenue (TR) and total cost (TC) at the profit maximising level. Is the farm making an economic profit, zero profit or an economic loss? Explain. (6 marks)
  - iii) is the farm in long-run equilibrium? Why or why not? (2 marks)
- b) Assume that Malaysia government imposes a ban on Thailand rice and this has caused the total supply of rice in Malaysia to decrease. The price of rice increases to RM4 per tonne in Malaysia. Based on this scenario,
  - i) reproduce *Exhibit 7* and draw a new diagram on your answer booklet to show the changes on rice market in Malaysia. (2 marks)
  - ii) reproduce *Exhibit 8* and draw a new diagram on your answer booklet to show the impact of this ban on Jasmine farm where the increase of price is now equal to the average total cost (ATC) of the farm. (2 marks)

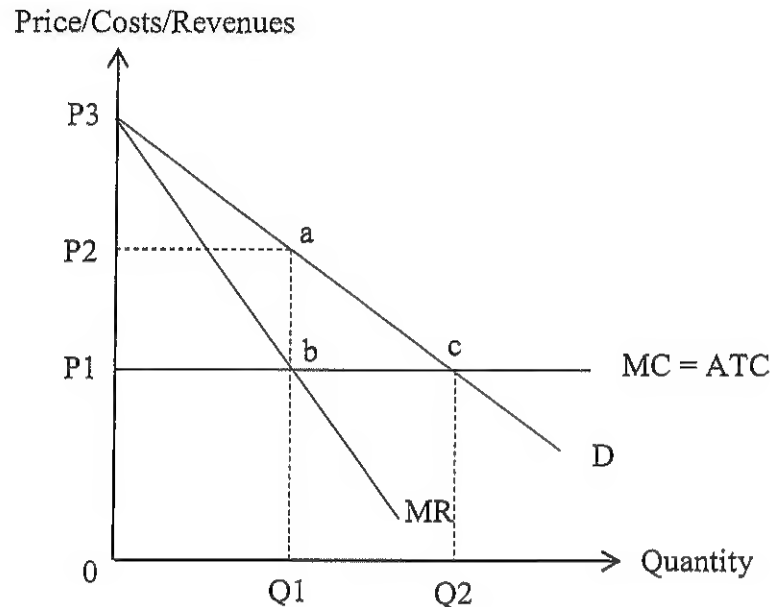
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- iii) is Jasmine farm currently making an economic profit, zero profit or an economic loss? Why?

(2 marks)

### Part B

**Exhibit 9** shows the marginal revenue (MR) curve, demand (D) curve and marginal cost (MC) curve of a monopoly firm.



**Exhibit 9**

Based on **Exhibit 9**,

- what is the monopoly price and quantity?  
(2 marks)
- what area represents consumer surplus under monopoly?  
(1 mark)
- what areas represent the total revenue (TR) and total cost (TC) under monopoly?  
(2 marks)
- what area represents the economic profits of the monopoly?  
(1 mark)
- what area represents the deadweight loss under monopoly?  
(1 mark)
- Suppose that the government breaks up the monopoly and turns it into a perfectly competitive industry, based on **Exhibit 9**,
  - what is the perfectly competitive price and quantity?  
(2 marks)
  - what area represents consumer surplus under perfect competition?  
(1 mark)
  - what happen to the monopoly's economic profit?  
(2 marks)
  - what happen to the deadweight loss associated with the monopoly?  
(2 marks)

**[TOTAL 30 MARKS]**

**End of paper.**